



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pamela Boyer

Serial No.: 09/639,055

Group Art Unit 3634

Filed: August 15, 2000

Examiner: Alvin Chin-Shue

For: "Safety Harness"

Date: October 15, 2001

To the Honorable Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

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**GROUP 3600**

**RESPONSE TO FINAL ACTION - REMARKS**

Sir:

This is a Response to the Office Action of July 13, 2001. A shortened statutory period for Response to the Office Action was set to expire three months from the date of the letter, making a Response due on or before October 13, 2001. Since October 13, 2001 falls on a Saturday, the due date for response is October 15, 2001.

Claims 1-4 and 22, 23 are pending in the application. Claims 1-4, 22 and 23 were rejected under 35 US 112, second paragraph because they positively recited the harness with respect to the user's body. These are new grounds of rejection.

The applicant amended Claim 1 to overcome the rejection under 35 USC 112, second paragraph by specifically reciting that the harness members **are configured** to extend over certain body portions (shoulders, etc.) of the user.

Claim 3 was also amended to insert the inadvertently omitted word "said" before "first branch." No new matter was introduced.

Claims 1-4, 22 and 23 were rejected under 35 USC 103(a) as being unpatentable over Dennington in view of Cox. These are **new grounds of rejection**, which necessitated amendments in the claims.

It is Examiner's position that Dennington shows the claimed invention with the exception of the shoulder straps with the resilient portions, and that Cox shows in Fig. 4b such straps to prevent fatigue of a wearer (emphasis added.)

It is also Examiner's position that to attach the suspended assembly of Dennington to his front left and right shoulder straps by sewing to enable a non-releasable attachment would have been an obvious mechanical expedient.

The applicant respectfully traverses this rejection and submits that as admitted by the Examiner, Dennington does not disclose provision of resilient stretchable shoulder straps. Cox discloses shoulder straps made in their entirety of a composite material - a section of an elastic material is sewn into a strap fabricated from conventional, non-elastic material, such as nylon and/or polyester. See, col. 4, lines 1 - 11, 61 - 67, Claims 1 and 10. Even further, Cox expressly states that "preferably, substantially the entire strap portion or the entire strap portion is fabricated from a material exhibiting an elastic extension" within the ranges of 3% under a tensile load of 20 pounds, and 7% to 11% under a tensile loading of approximately 10 pounds. See, column 1, lines 41- 58. Still further, over the range of elastic extension, the elastic materials used in the strap portions "return to their original (non-extended) length from an extension within the range of elastic extension when a tensile load is removed." See, column 1, lines 62 - 67.

This specific language of Cox's Summary of the Invention clearly demonstrates that Cox intends to make the entire straps flexible and resilient. Cox recognizes that two

important considerations govern his choice of material - safety and comfort of the user. Still, having described in minute details the elastomeric extension and tensile loading on different portions of the harness, Cox fails to recognize that **portions** of the shoulder straps, not the entire straps may be made elastic and resilient, without the limit of a non-elastic double-strap, while the remainder of the straps should be made non-elastic.

With regards to the disclosure of Fig. 4b of Cox, specifically relied upon by the Examiner, contrary to Examiner's statement, this embodiment does not show the same features as those claimed in claims 1 and 2 of the instant application. The applicant respectfully draws attention of the Examiner to the description of Fig. 4b in col. 6, lines 53 - 67 and col. 7, lines 1 - 5. Specifically, Cox states that the shoulder strap portion 102 is comprised of a non-elastic material. A different member, this time an elastic strap 104 with low tensile strength, is stitched to the underside of the strap 102 to fit snugly over the user's shoulder. The non-elastic portion 102 limits the extension of the portion 104.

Consequently, Cox does not rely on the elastic portion 104 for strength or security because it has low tensile strength (emphasis added). Instead, all reliance is on the 20% extension of the non-elastic portion 102 for safety in arresting a fall. This double-strap shoulder portion with a weak inner strap is not equal in claimed features to the claims of the instant application.

Specifically, the present invention discloses a three-section shoulder strap, all connected co-extensively to each other - an anterior portion from the waist portion up is made of non-stretchable material, the second portion that extends over the shoulders of the user is made stretchable and resilient, and a third posterior portion is made non-stretchable. All elements of the shoulder strap have the required tensile load capabilities.

Such structure is not shown, suggested or described in any of the prior art references cited by the Examiner. This arrangement provides safety for a three-point suspension harness not recognized or possible by the designs of either the primary or the secondary reference, or any combination thereof.

Claims 2-4 and 22-23 depend directly or indirectly on the now believed allowable Claim 1, and should be allowed, as well. The applicant also stresses that there is no evidence of record to support Examiner's combination of non-elastic harness of Dennington with a double-strap shoulder portion of Cox. Even assuming, for the sake of an argument, that a reader suddenly decides to substitute the shoulder strap of Dennington with the double-strap of Cox - still the reader would not arrive at the claimed invention of Claims 1-4, 22 and 23.

Additionally, the applicant respectfully submits that Dennington does not disclose, in Fig. 6, provision of a resilient suspender assembly that is fixedly attached to the shoulder straps. As shown in Fig. 6 and described in Col. 7, lines 36 - 67 and col. 8, lines 1 - 6, Dennington employs an anterior D-ring 62 positioned and attached to the shoulder straps 36 and 38. A second pair of upper D-rings 104 is provided on the shoulder straps 36, 38 in a position above and posterior from the D-ring 62. Before the user puts on a harness, each anterior end 82 of the cord 68 is detached from the D-ring 62. The anterior end 82 is then threaded through the corresponding upper D-ring 104, and is reattached to the corresponding anterior D-ring 62.

Therefore, Dennington discloses a device, where the elastomeric suspender assembly is not fixedly, non-detachably attached to the shoulder straps. Each time a user puts on a harness, the suspender assembly is threaded through the D-rings again. Such

arrangement creates an undesirable weak link in the harness assembly. The present invention obviates this disadvantage by stitching the suspender assembly to the shoulder straps, below the elastomeric portions of the shoulder straps. Such feature is not shown, taught or described by Dennington.

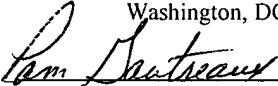
It is not sufficient to state that it would have been an obvious engineering expedient to attach the suspender assembly "by the conventional non-releasable method of stitching." It is apparent that Dennington did not choose this engineering solution. To read into Dennington, by hindsight, what could have been done had Dennington chose to form a non-releasable attachment, is a non-permissible method of establishing obviousness.

Obviousness is a legal question based on underlying factual determinations. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566, 1 USPQ2d 1593, 1596 (Fed. Cir. 1987). Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *W. L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). This is an illogical and inappropriate process. *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 38 USPQ2d 1551 (Fed. Cir. 1996). The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

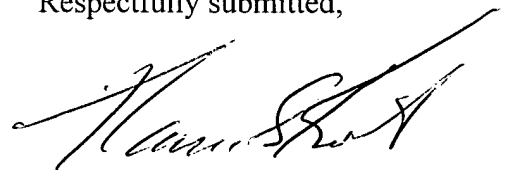
In equating the function of sewing to the concept of permanent, not detachable connection between the suspender and the harness, the Examiner erred and impermissibly

used hindsight to arrive at the claimed invention. See *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.").

In view of the amendments and arguments presented above, it is believed that Claims 1-4 and 22-23 are in condition for allowance and issuance of an early Notice of Allowance is respectfully requested. Should the Examiner feel that a telephone conference would advance resolution of any issues remaining in the case, he is invited to call the undersigned at the telephone number listed below.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to:	
Commissioner of Patents and Trademarks Washington, DC 20231	
 Pamela Gautreaux	<u>10-15-01</u> Date

Respectfully submitted,

  
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1. A safety harness, comprising:

a body harness assembly positionable on a user's body, the body harness assembly comprising a left shoulder strap and a right shoulder strap, said shoulder straps crossing in a back side of the body harness, while sliding through a lanyard securing member;

a resilient suspender assembly having a first branch and a second branch, a front end of the first branch being fixedly attached to the left shoulder strap, a front end of the second branch being fixedly attached to the right shoulder strap, a back end of the first branch and a back end of the second branch being fixedly attached to the lanyard securing member positioned centrally with respect to the left shoulder strap and the right shoulder strap on the back side of the body harness;

said left shoulder strap and said right shoulder strap each having a first non-resilient portion configured to extend from about a waistline of a user to about a shoulder level of the user, a second resilient stretchable portion co-extensively fixedly attached to the first portion and configured to extend over a shoulder of the user and a third non-resilient portion co-extensively fixedly attached to the second portion and configured to extend along a back of the user to about the waistline of the user.

2. The device of Claim 1, wherein each of said second portions of said left shoulder strap and said right shoulder strap is an elastomeric resilient portion located adjacent an apex of the shoulder strap.

3. The device of Claim 1, wherein said first branch and said second branch of the suspender assembly is sewn to said left shoulder strap and said right shoulder strap respectively.

4. The device of Claim 1, wherein said body harness further comprises a belt for encircling the user's waist, and wherein each of said shoulder straps terminates at said belt.

22. The device of Claim 1, wherein said front end of the first branch is fixedly attached to the left shoulder strap below said second portion and wherein said front end of the second branch is fixedly attached to the right shoulder strap below said second portion.

23. The device of Claim 22, wherein said front end of the first branch is stitched to the left shoulder strap and the front end of the second branch is stitched to the left shoulder strap and to the right shoulder strap.